Mission: To uncover new knowledge...
...that will lead to better health for everyone;
...to help prevent, detect, diagnose, and treat disease and disability.

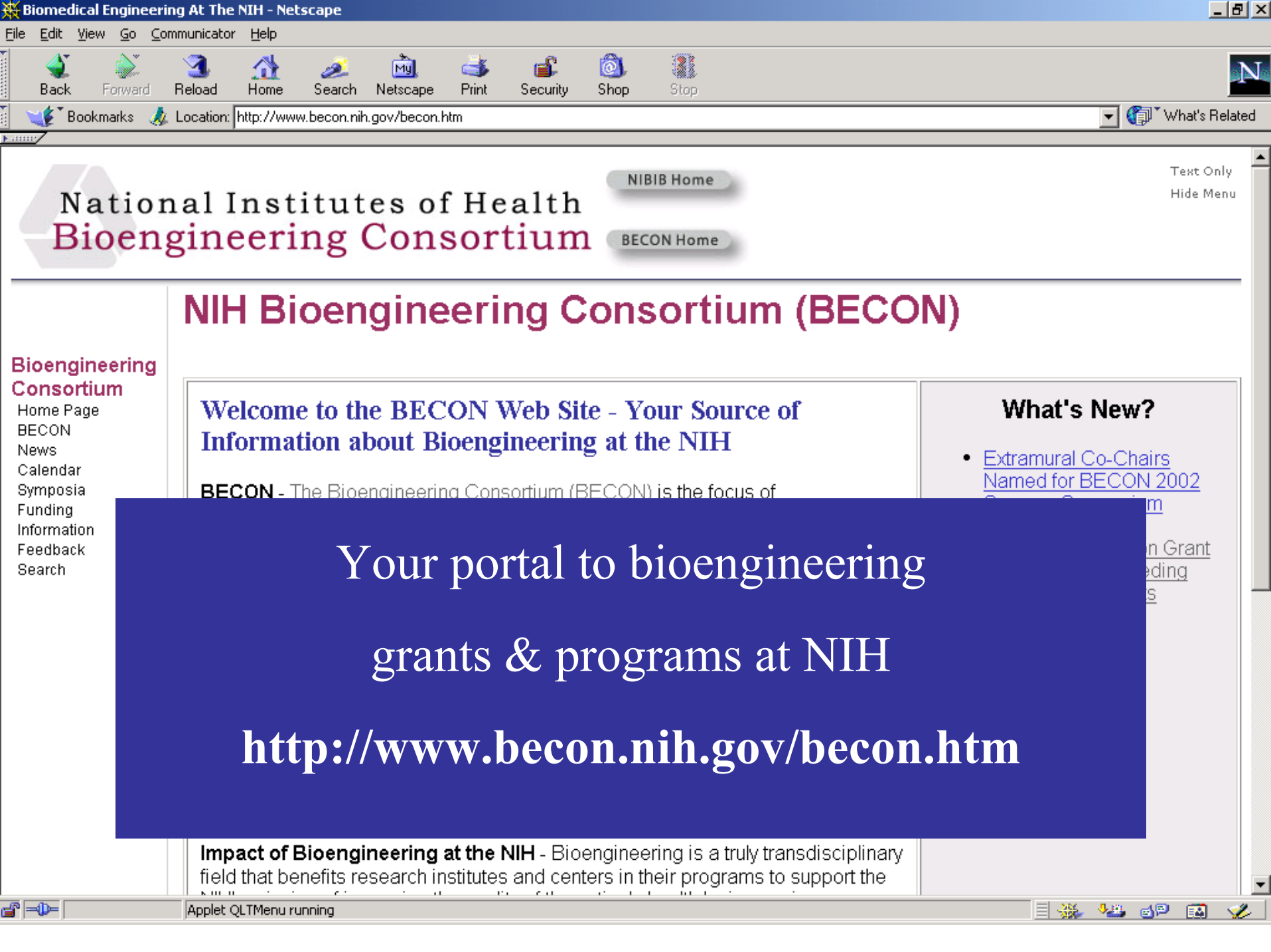
NIH BIOENGINEERING CONSORTIUM (BECON)

- Initiated in February 1997 by Office of the Director, NIH
- O
  Imaging and Bioengineering
- Aimed at facilitating development of bioengineering and fostering intra-NIH and inter-agency cooperation
- Multi-agency membership. Members consist of senior-level representatives from NIH institutes, offices and centers and other federal agencies

NIH BIOENGINEERING CONSORTIUM (BECON)

BECON MEMBERS

NIH-OER	NCRR	NIAMS	NIEHS
NIH-CSR	NEI	NIBIB	NIGMS
NIH-OIR	NHGRI	NICHD	NIMH
NIH-CC	NHLBI	NIDA	NINDS
NIH-ORS	NIA	NIDCD	NINR
NIH-CIT	NIAAA	NIDCR	NLM
NCI	NIAID	NIDDK	*NSF DOE NIST*


Biomedical Engineering At The NIH - Netscape
File Edit View Go Communicator Help
Back Forward Reload Home Search Netscape Print Security Shop Stop
Bookmarks Location: http://www.becon.nih.gov/becon.htm
What's Related
National Institutes of Health
Bioengineering Consortium
NIBIB Home
BECON Home
Text Only
Hide Menu
NIH Bioengineering Consortium (BECON)
Bioengineering Consortium
Home Page
BECON
News
Calendar
Symposia
Funding
Information
Feedback
Search
Welcome to the BECON Web Site - Your Source of Information about Bioengineering at the NIH
BECON - The Bioengineering Consortium (BECON) is the focus of
What's New?
Extramural Co-Chairs Named for BECON 2002
Your portal to bioengineering
grants & programs at NIH
http://www.becon.nih.gov/becon.htm
Impact of Bioengineering at the NIH - Bioengineering is a truly transdisciplinary field that benefits research institutes and centers in their programs to support the
Applet QLTMenu running

NATIONAL INSTITUTES OF HEALTH
National Institute of Biomedical Imaging and Bioengineering

NIH Home NIBIB Home

Welcome to the Web Site for the National Institute of Biomedical Imaging and Bioengineering (NIBIB) - Your Gateway for Information about Biomedical Imaging and Bioengineering at the National Institutes of Health (NIH).

About NIBIB | For Investigators | For Students | News & Events

BECON | General Information

The National Institute for Biomedical Imaging and Bioengineering (NIBIB) is the newest of the research institutes at the National Institutes of Health (NIH). The NIBIB is authorized by law H.R. 1795 (P.L. 106-580) which was signed by President William Clinton on December 29, 2000.

The mission of the NIBIB is to "improve health by promoting fundamental discoveries, design and development, and translation and assessment of technological capabilities. The Institute coordinates with biomedical imaging and bioengineering programs of other agencies and NIH institutes to support imaging and engineering research with potential medical applications and facilitates the transfer of such technologies to medical applications."

This Web site contains information on all aspects of the NIBIB including organization and

What's New?

- First NIBIB Research RFA's Announced
- BECON 2002 Symposium Web site Releaseed - Online Registration is Now Available

NIH BIOENGINEERING CONSORTIUM (BECON)

BECON Symposia: Guiding the Science, Guiding the Programs

Bioengineering: February 27-28, 1998
Building the Future of Biology and Medicine

Biomedical Imaging: June 25-26, 1999
Visualizing the Future of Biology and Medicine

Nanoscience and Nanotechnology: June 25-26, 2000
Shaping Biomedical Research

Reparative Medicine: June 25-26, 2001
Growing Tissues and Organs

Sensors June 24-25, 2002
in Biological Research and Medicine

Welcome - BECON 2002 - Netscape

File Edit View Go Communicator Help

- Welcome
- News & Updates
- Scope & Purpose
- Agenda
- Registration
- Location & Directions
- Map
- Hotels
- Poster Abstracts
- Continuing Education
- Breakout Sessions
- Speakers

BECON 2002: Sensors for Biological Research and Medicine

June 24-25, 2002
Natcher Conference Center
National Institutes of Health
Bethesda, Maryland

Welcome

"Sensors for Biological Research and Medicine" promises to be an informative, dynamic, and valuable meeting. Building on the success of four previous BECON symposia, the 2002 symposium will convene physical scientists, engineers, and biomedical scientists and clinicians from academia, industry, and federal agencies to describe the state of the art, determine future needs and directions, and advise the NIH about ways to stimulate the field. Focus areas include medical, biological, and environmental research and applications.

Please visit this Web site frequently for updates on program topics, speakers, panelists, poster sessions, and more.

BIOENGINEERING RESEARCH SUPPORT AT NIH

Bioengineering Research Grants

- For basic and applied multi-disciplinary research that addresses important biological or medical research problems.
- Hypothesis-driven, discovery-driven, developmental, or design-directed research.
- Multi-disciplinary research performed in a single laboratory or by a small number of investigators that applies an integrative, systems approach to develop knowledge and/or methods to prevent, detect, diagnose, or treat disease or to understand health and behavior.
- Research Project (R01) mechanism
- Applications Receipt: February 1, June 1, and October 1
- http://grants.nih.gov/grants/guide/pa-files/PA-02-011.html

BIOENGINEERING RESEARCH SUPPORT AT NIH

Bioengineering Research Grants
>105 funded since FY 99
http://www.becon2.nih.gov/Funded/BRG01.pdf

94. **PRINCIPAL INVESTIGATOR:** VIGNERON, DANIEL
AFFILIATION: UNIVERSITY OF CALIFORNIA SAN FRANCISCO
PROJECT TITLE: 3D MR SPECTROSCOPIC IMAGING OF THE NEWBORN BRAIN
GRANT NUMBER: 3R01NS040117-01A1S1

95. **PRINCIPAL INVESTIGATOR:** VOHRA, YOGESH
AFFILIATION: UNIVERSITY OF ALABAMA AT BIRMINGHAM
PROJECT TITLE: NANOCRYSTALLINE COATINGS FOR DENTAL TMJ IMPLANTS
GRANT NUMBER: 1R01DE013952-01A1

96. **PRINCIPAL INVESTIGATOR:** VORP, DAVID
AFFILIATION: UNIVERSITY OF PITTSBURGH AT PITTSBURGH
PROJECT TITLE: BIOMECHANICAL EVALUATION OF ABDOMINAL AORTIC ANEURYSM
GRANT NUMBER: 1R01HL060670-01A2

97. **PRINCIPAL INVESTIGATOR:** VORP, DAVID
AFFILIATION: UNIVERSITY OF PITTSBURGH AT PITTSBURGH
PROJECT TITLE: BIOMECHANICAL PRECONDITIONING OF HUMAN VEIN GRAFTS
GRANT NUMBER: 5R01HL065745-02

98. **PRINCIPAL INVESTIGATOR:** WANG, KENNETH
AFFILIATION: MAYO CLINIC ROCHESTER
PROJECT TITLE: A NOVEL TECHNIQUE FOR SCREENING BARRETT'S ESOSPHAGUS
GRANT NUMBER: 5R01CA085992-02

BIOENGINEERING RESEARCH SUPPORT AT NIH

Bioengineering Research Partnerships

- For basic and applied research by a multi-disciplinary team applying an integrative, systems approach to develop knowledge and/or methods to prevent, detect, diagnose, or treat disease or to understand health and behavior.
- Partnership must include bioengineering expertise and basic and/or clinical expertise.
- Maximum request = $2M per year for five years
- Need approval > 6 wks before submission if request > $500,000 direct cost
- Research Project (R01) mechanism
- Application receipt: January 24, 2002, and August 12, 2002
- http://grants.nih.gov/grants/guide/pa-files/PAR-02-010.html

BIOENGINEERING RESEARCH SUPPORT AT NIH

Bioengineering Research Partnerships
>60 funded since FY 99
http://www.becon2.nih.gov/Funded/BRP01.pdf

26. Principal Investigator: Langer, Robert
Affiliation: Massachusettes Institute of Technology
Title: Microchip Drug Delivery System
Application Number: AI47739
Funding Organization: NIAID
Abstract:

The method by which a drug is delivered can have a significant effect on the drug's therapeutic efficacy. Controlled drug delivery can alleviate problems associated with conventional therapy by providing stable drug bioavailability in a therapeutically meaningful range and can be used to localize the therapy to the tissue site of interest. Recent studies have shown that it is possible to fabricate a solid-state silicon microchip in which a number of chemicals or drugs can be stored and released on demand by an external trigger. Based on this technology, it should be possible to fabricate a device that can be pre-programmed to deliver combination drugs in a pre-determined fashion. This novel delivery technology has broad utility in the biomedical areas of local delivery of anesthetics for pain management, sub-dermal delivery of vaccines, periodontal delivery of antibiotic and anti-inflammatory agents, localized delivery of anti-tumor and neoplastic agents, gene delivery, and delivery of antiarrhythmic agents. The objectives of this proposal are to (1) develop an active, silicon-based microchip for controlled release of drugs that con operate autonomously; (2) develop a passive, polymeric chip for the controlled release of drugs; (3) evaluate the biocompatibility of active and passive microchip delivery devices; and (4) evaluate the resulting drug release both in vivo and in vitro.

27. Principal Investigator: Levine, Simon
Affiliation: University of Michigan - Ann Arbor
Title: Direct Brain Interface Based on Event Detection in ECOG
Application Number: NS040681
Funding Organization: NINDS
Abstract:

A number of people with physical disabilities have difficulty performing any physical movement and would benefit from a direct brain interface, an interface that accepts commands directly from the brain. The University of Michigan Direct Brain Interface (UMDBI) research partnership is a collaboration which includes the Departments of Biomedical Engineering, Electrical Engineering and Computer Science, Physical Medicine and Rehabilitation, Neurology, Surgery and Radiology from the University of Michigan; the Departments of Neurology from the Henry Ford Hospital, and the Institute of Biomedical Engineering from the Technical University Graz. These partners propose to address the functional evaluation of a direct brain interface and the optimization of detection methods

BIOENGINEERING RESEARCH SUPPORT AT NIH

Mentored Quantitative Research Career Development (K25)

- For junior faculty in physical/mathematical and engineering disciplines to engage in supervised study & research leading to increased competence to perform behavioral and biomedical research.
- PI's on NIH grants are not eligible
- Up to five years of support, $75,000 salary, $40,000 supplies/personnel/travel/tuition
- Requires commitment of 75% of effort
- Application Receipt: February 1, June 1, and October 1
- http://grants.nih.gov//grants/guide/pa-files/PA-99-087.html

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
PUBLIC HEALTH SERVICE

GRANT APPLICATION

PHS 398 (REVISED May 2001) - Updated: 01/25/2002 (see below)

Specific Aims

List the broad, long-term objectives and what the specific research proposed in this application is intended to accomplish, e.g., to test a stated hypothesis, create a novel design, solve a specific problem, or develop new technology. One page is recommended.

BRP Program Contacts (1)

National Cancer Institute (NCI)
Edward Monachino, Ph.D.

National Eye Institute (NEI)
Lore Anne McNicol, Ph.D.

National Heart, Lung, and Blood Institute (NHLBI)
Martha S. Lundberg, Ph.D.

National Human Genome Research Institute (NHGRI)
Jeffery A. Schloss, Ph.D.

National Institute on Aging (NIA)
Winifred K. Rossi, M.A.

National Institute of Allergy and Infectious Diseases (NIAID)
Maria Y. Giovanni, Ph.D.

National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS)
James S. Panagis, M.D., M.P.H.

BRP Program Contacts (2)

National Institute for Biomedical Imaging and Bioengineering (NIBIB)
Joan T. Harmon, Ph.D.

National Institute of Child Health and Human Development (NICHD)
Louis Quatrano, Ph.D.

National Institute on Drug Abuse (NIDA)
Thomas G. Aigner, Ph.D.

National Institute on Deafness and Other Communication Disorders (NIDCD)
Lynn Luethke, Ph.D.

National Institute of Dental and Craniofacial Research (NIDCR)
Eleni Kousvelari, D.D.S, D.Sc.

National Institute of Diabetes and Digestive and Kidney Disorders (NIDDK)
Maren Laughlin, Ph.D.

BRP Program Contacts (3)

National Institute of Environmental Health Sciences (NIEHS)
William Suk, Ph.D.

National Institute of General Medical Sciences (NIGMS)
Warren Jones, Ph.D.

National Institute of Mental Health (NIMH)
Michael F. Huerta, Ph.D.

National Institute of Neurological Disorders and Stroke (NINDS)
William Heetderks, M.D., Ph.D.

National Institute of Nursing Research (NINR)
Hilary D. Sigmon, Ph.D., RN

National Library of Medicine (NLM)
Milton Corn, Ph.D.